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Culling the Poultry Flock

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EGG HEN

Fig. 1.—Proper body type and high egg production go hand in hand. This hen has a record of 270 eggs for her pullet year.

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Culling the Poultry Flock

Culling out the poor hens should be continuous thruout the year. This consists of weeding out any hen that is sick or shows a decided lack of vitality. The whole flock should be gone over carefully and systematically at some one time of the year in order to separate or to cull out the hens that have been the poor layers. The time for this thoro culling should come before the pullets are ready for the laying pens. Since it is a process of eliminating the non-layer it will save feed to cull as early as possible. If the flock is gone over in July or August it is well to repeat the culling in September or October. If only one culling is to be done it is better done in August or September.

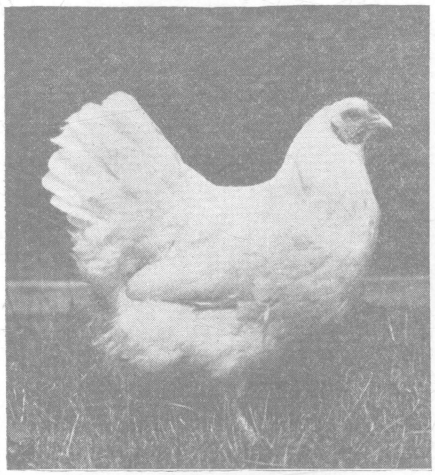

Fig. 2.—This short-backed, loose-feathered Wyandotte is a poor hen. Record 40 eggs. Note the sunken eye. Compare this type with the good hen on opposite page.

In culling the flock we have two questions to ask regarding each hen.

1—Is she laying?

2—Has she been a high egg producer.

The answers to these questions are based upon the following:

1—Color changes in the body due to egg production.

2—Body changes in fat and lay bones.

3—Time of molting.

COLOR CHANGES

When a hen is not laying she deposits fat on her body. This fat contains a yellow pigment (in yellow-skinned varieties) which gives the yellow color to the legs, beak, skin, etc. As soon as a hen begins to produce eggs, this yellow pigment is diverted from the

Figs. 1, 2, and 3 by courtesy of Dr. O. B. Kent.

body and is used in coloring the egg yolk. As long as a hen produces eggs the pigment is all used by the yolk and none of it finds its way to the body. When she stops laying this pigment is again deposited with the body fat.

The pigment deposited in the body during the hen's rest period gradually fades or bleaches out during production, leaving the body color a bluish white or pink. This process of fading follows a certain definite course, always in the following order: First, the vent; second, the eye rings and ear lobes; third, the beak; and lastly, the shanks.

The kind of feed a hen has had affects the period necessary for the color to fade. The yellow pigment is derived from the grain and green feed that the hen eats. The hen that has had yellow corn and plenty of green feed has a larger supply of yellow stored in her body than a hen fed on white corn with no green feed, and the more yellow pigment there is stored the longer the time required for bleaching. With these facts in mind it is possible to select the hen that has been the continuous, consistent layer, as well as to determine those hens that have just begun to lay or have been very poor layers.

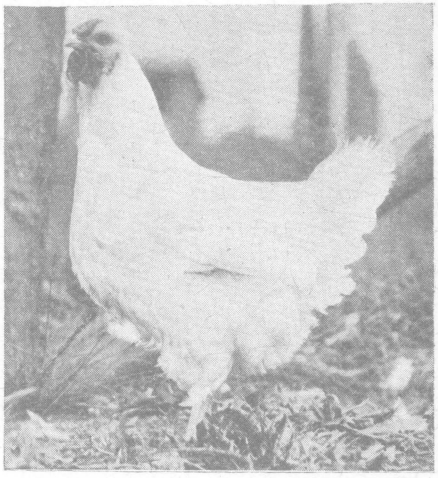

Fig. 3.—Body type is the best measure for production. The high-producing hen has a deep body with a long, prominent breast. The head is well balanced and the eye is large and prominent. The hen has a record of 254 eggs.

VENT, EYE RING, AND EAR LOBE COLOR

The vent is the first to lose the yellow color after egg production starts. This is due to the fact that those parts of the body where the blood circulation is greatest, fade first. A white or pink vent of a yellow-skinned bird indicates she is laying.

The eye rings, which are in the inner edge of the eyelids, bleach out a little more slowly than the vent and, therefore, bleached or white eye rings indicate a longer production than a bleached vent.

The ear lobes on the white-lobed varieties bleach next and indicate a still longer period of production than a white vent and white eye rings.

BEAK COLOR

The beak loses its color before the shanks do, and a white beak indicates that the hen has been producing eggs for a month or six weeks. The color leaves the beak beginning at the base, and gradually disappearing until it leaves the front part of the upper beak.

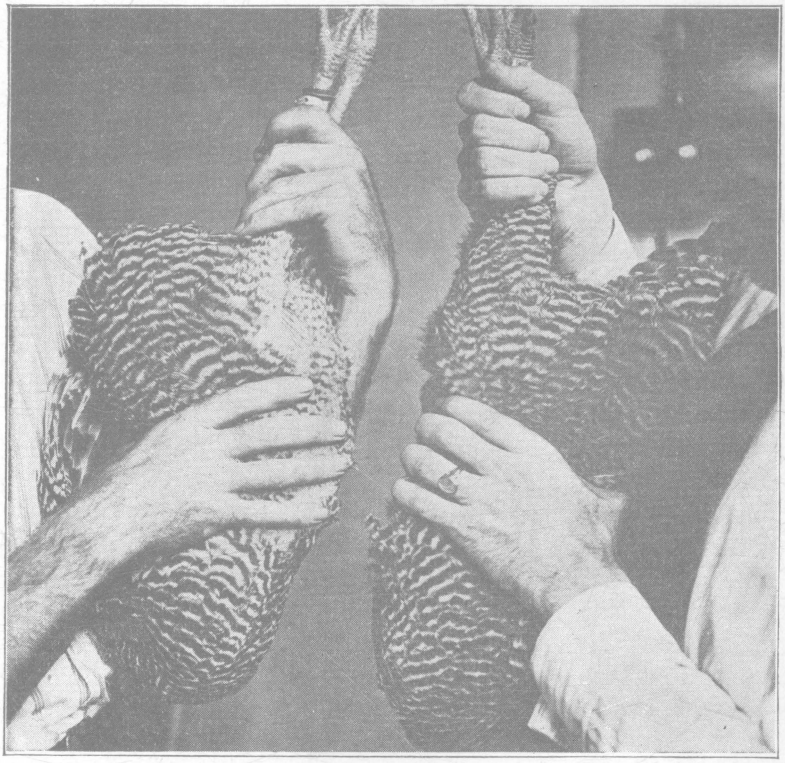

Fig. 4.—Body depth is a measure of a hen's capacity to consume a large quantity of food and consequently produce a large number of eggs. The hen on the left is a deep-bodied, flat-sided high producer. The one on the right is a shallow, round-bodied scrub. A more accurate method of measuring body depth is shown in Fig. 5.

The lower beak bleaches faster than the upper. The lower beak should be used for observation when the upper is covered with black or horn as in the Rocks and Rhode Island Reds.

SHANK COLOR

The shanks are the last to lose the yellow color, and for this reason are the surest indication of long, continuous production. It

takes from four to five months for the shanks to become white after the hen begins producing eggs. The color leaves the front of the shank first and gradually fades from the scales on the back as the length of the laying period increases.

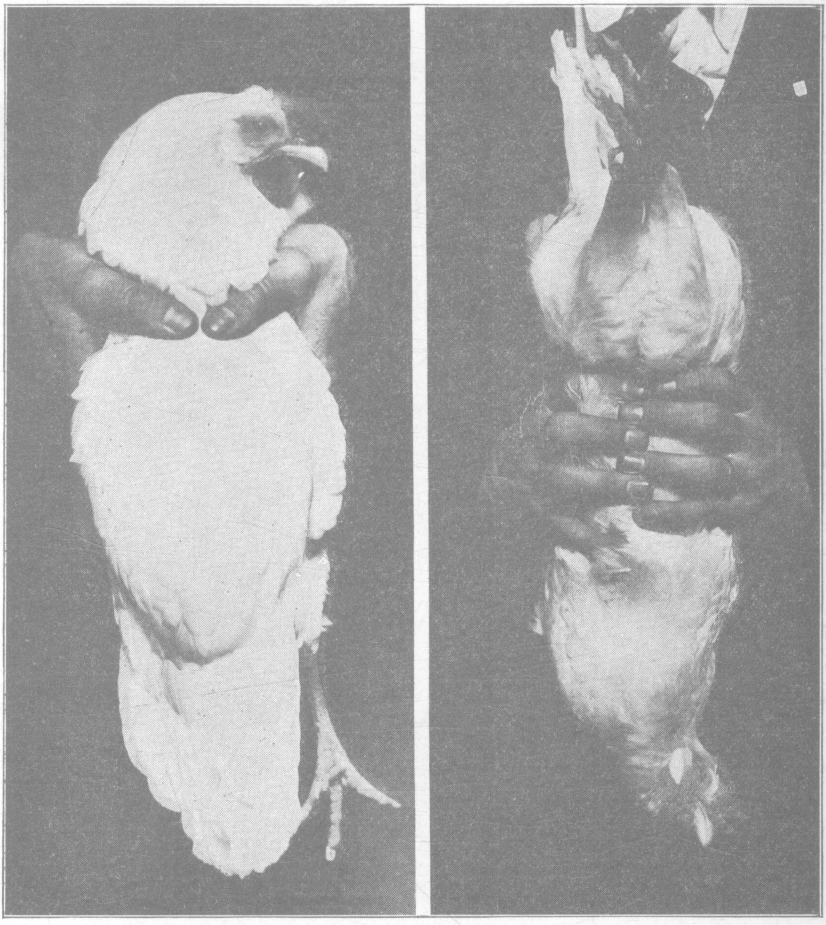

Fig. 5.—To measure body depth hold the hen in both hands with the head facing you. Place the thumbs together in the middle of the back and clasp the fingers along the breast bone. The two little fingers should fall on the front end of the breast bone and the forefingers on the rear end. By handling several hens a difference of a fraction of an inch can easily be detected.

BODY CHANGES

VENT

The vent of a laying hen is large, open, moist, and soft, while the vent of a non-laying hen is small, closed, dry, and puckered.

COMB

The comb of a laying hen is large, full, and bright in color, while the comb of a non-laying hen is dry and hard, often covered with scale, and is pale in color.

ABDOMEN

The fat covering of the body cavity in a laying hen is soft and pliable. It feels very much like a cow's udder that has been partly

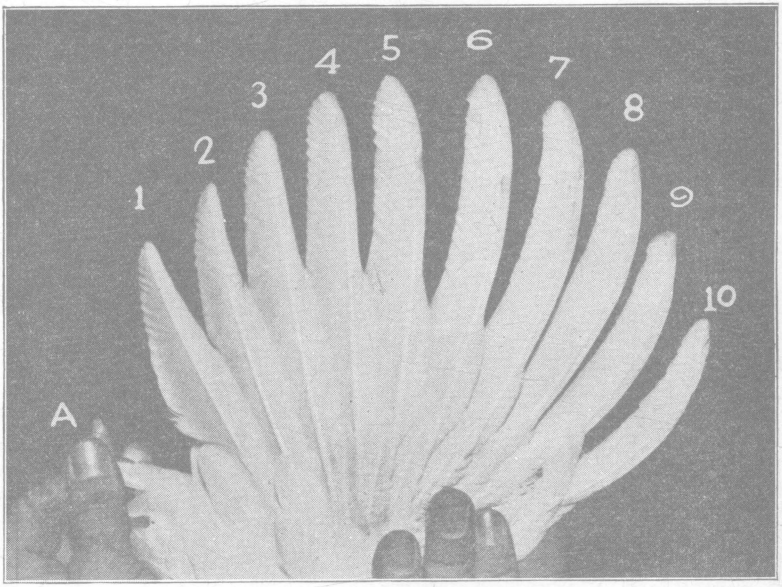

Fig. 6.—WING FEATHERS.—Hens, like all birds, are dependent upon their wings for protection from their enemies. The primary flight feathers are the most important because they have the greatest lifting power. In order that a bird may be able to fly at all times, nature provides that the feathers shall be shed and replaced gradually. A small axial feather separates the primary and secondary feathers (See A above). The feathers are molted in order from 1 to 10 as shown above. The better the hen the more rapidly are the feathers dropped and replaced. With a poor hen when No. 1 is dropped and replaced with a new one it indicates a two weeks' loss in production and so on with each primary feather, which means a total loss of 20 weeks if all primary feathers are molted each season. This picture, taken in December and showing a full new wing, indicates that this hen was an early molter and has been out of production for several months.

milked. The skin is soft and velvety. The abdomen of the non-laying hen is dry and hard.

PELVIC BONES

The pelvic or pin bones of a laying hen are straight and flexible, with very little or no fat around them. They are spread apart far enough to permit the passage of the egg. The spread varies with the individual and the breed, but no definite measurement can be given. In general, however, a laying hen will show a spread between the pin bones of at least three fingers. Practice is neces-

sary to determine just what spread indicates that the hen is laying. Keep in mind the fact that a hen that is laying will show a greater spread of pelvic bones than one not laying, and that the bones of a non-laying hen are thick, stiff, and blunt, with the ends bent in.

DISTANCE FROM PELVIC BONES TO KEEL BONES

A laying hen consumes more feed than one that is not laying. A high egg producer consumes more feed than a poor egg producer.

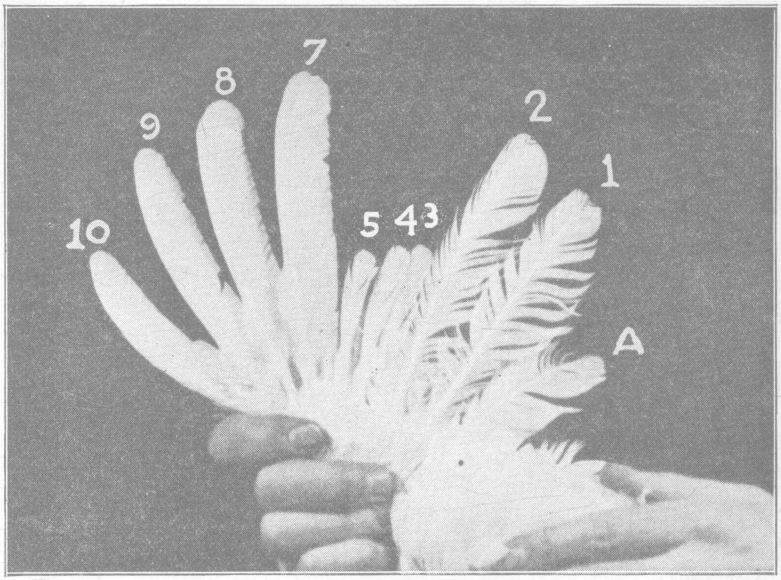

Fig. 7.—The above illustration, taken December 20, shows the wing of a heavy-laying, late-molting hen. "A" is the axial feather. Feathers 1 and 2 are mature new feathers at least six weeks old indicating that this hen took a rest sometime during the early fall. Feathers 3, 4, and 5 are new feathers just coming in. These feathers being nearly equal length indicate rapid molting, characteristic of high producers. Feather 6 has just been molted, and the new feather is not large enough to show. Feathers 7, 8, 9, and 10 are old feathers and probably will not be molted this season.

In order to consume and digest this feed the intestines of a laying hen are larger than a hen not laying. When laying, the ovary and oviduct are greatly enlarged and require more room. To provide this extra room, the body increases in depth. This is noticeable by the increase in the distance from the pelvic bones to the end of the keel bone.

The increase in size of the body cavity is secured by the dropping down of the keel bone. By measuring the distance from the pelvic bones to the keel bone an idea can be formed as to whether the hen is in laying condition or not. No definite measurement can be given that will fit all individual hens. As a general rule, a hen that

measures less than three fingers is not laying, or is a poor layer, because such a hen lacks the capacity for handling a large amount of feed. The hen that shows the greater body depth is to be chosen as a good layer if she shows the other marks of egg production.

BODY DEPTH

The best hens in the flock are the ones having the deepest bodies when measured from the center of the back to the front end of the breast bone, as shown in Fig. 4. A good hen is flat sided and has a long, prominent breast. The best method of handling the birds to measure body depth is shown in Fig. 5. This method of determining capacity is preferred to that of measuring the distance from the pelvic bones to the keel bone because the latter merely tells whether the hen is laying or is not laying, and cannot be depended upon for selecting pullets, cockerels, or hens not in production. The measurement illustrated can be used to select pullets and cockerels as well as hens.

THE MOLT

Most hens stop laying when they begin to molt. Since the molting period covers several weeks it is advisable to sell the hens that molt early. It is a fact, no longer disputed, that a hen, in order to make a high yearly record, must be a consistent layer. The early molting hen is not a consistent layer. She takes all the fall months as a vacation for changing her plumage. The consistent layer molts late and grows her new plumage rapidly (see Figs. 6 and 7).

The time of the molt is the best indication of the last year's performance. This can be used in culling all breeds and varieties, but is of special importance with such breeds as the Orpingtons and Minorcas that do not have the yellow skin.

The hen that molts early, under normal conditions, will not lay as many winter eggs as the hen that molts late. Neither will she begin egg production earlier in the spring. No definite date can be set as to early molting. As a general rule, however, the first hens in the flock to molt should be sold, and the last to molt should be kept for breeding purposes.

Hens may be thrown into an early molt by starving while laying heavily; by irregular feeding; by roosting in a house that is poorly ventilated, or in any way that tends suddenly to check egg production. This should be avoided, as it is very likely to result in a lower total egg production. If the pullets are hatched early, they will be laying early in the fall and thus the egg production kept up at all seasons.